

## Claims

1. A method for distributing read commands to disks associated with a redundant array of inexpensive disks (RAID) system, comprising:

establishing a first and second counter, the first counter associated with a first disk

5 drive, the second counter associated with a second disk drive;

receiving a command from an operating system;

determining if the received command is a read command;

examining the first and second counters if the received command is the read command, the examining including,

10 determining which of the first and second counters is a lower value counter or if the first and second counters are of equal value;

selecting a drive associated with the lower value counter or if the counters are of equal value selecting a first drive;

15 incrementing the lower value counter or the first counter if counters are of equal value; and

directing the read command to the drive associated with the lower value counter or the first drive if the counter are of equal value.

2. The method as recited in claim 1, further including:

20 providing a multithread environment for receiving multiple commands from the operating system.

3. The method as recited in claim 1, wherein directing the read command to the drive associated with the lower value counter, includes:

25 sending the read command to a drive queue of the drive associated with the lower value counter.

4. The method as recited in claim 3, wherein the drive queue holds 256 commands.

5. The method as recited in claim 1, wherein the RAID system is a software RAID implementation.

6. The method as recited in claim 1, wherein the RAID system is a hardware RAID implementation

7. A method for maintaining a substantially even load of read commands on multiple disk drives associated with a RAID mirroring system, comprising:

associating each of the multiple disk drives with a counter, each counter being configured to track a queue of read commands for a corresponding disk drive;

examining each counter to identify a least loaded disk drive;

incrementing the counter associated with the least loaded disk drive;

sending a read command to the least loaded disk drive;

processing the read command in the least loaded disk drive;

generating an interrupt; and

decrementing the counter associated with the least loaded disk drive in response to the generated interrupt.

8. The method as recited in claim 7, further including:

providing a multithread environment, the multithread environment allowing multiple read commands to be processed concurrently.

9. The method as recited in claim 7, wherein the interrupt is a small computer system interface (SCSI) interrupt.

10. The method as recited in claim 7, further including:

5 reporting to an operating system that the read command has been processed.

11. A computer readable media having program instructions for maintaining a substantially even load of read commands on multiple disk drives associated with a RAID mirroring system, comprising:

10 program instructions for associating each of the multiple disk drives with a counter, each counter being configured to track a queue of read commands for a corresponding disk drive;

program instructions for examining each counter to identify a least loaded disk drive;

15 program instructions for incrementing the counter associated with the least loaded disk drive;

program instructions for sending a read command to the least loaded disk drive;

program instructions for processing the read command in the least loaded disk drive;

20 program instructions for generating an interrupt; and

program instructions for decrementing the counter associated with the least loaded disk drive in response to the generated interrupt.

12. The computer readable media as recited in claim 11, wherein the interrupt  
25 is a small computer system interface (SCSI) interrupt.

13. The computer readable media as recited in claim 11, wherein the RAID system is one of a software RAID implementation and a hardware RAID implementation.

14. The computer readable media as recited in claim 11, further including:  
5 program instructions for providing a multithread environment, the multithread environment allowing multiple read commands to be processed concurrently.

15. An apparatus for distributing read commands between disk drives, the apparatus comprising:

10 a central processing unit;  
an operating system, the operating system configured to generate commands;  
a first and second disk drive, the first disk drive being associated with a first counter, the second disk drive being associated with a second counter;  
a RAID driver in communication with the first and second disk drives, the RAID  
15 driver including code for identifying a read command from the generated commands and identifying a least busy disk drive, wherein the read command is sent to the least busy disk drive.

16. The apparatus as recited in claim 15, wherein the RAID driver implements  
20 a RAID level 1 system.

17. The apparatus as recited in claim 15, further including:  
a first and second queue, the first queue corresponding to the first disk drive the  
second queue corresponding to the second disk drive, the first and second queue  
25 configured to hold multiple commands.

18. The apparatus as recited in claim 15, further including:

a multithread environment, the multithread environment configured to process multiple read commands concurrently.

5 19. The apparatus as recited in claim 15, wherein the RAID driver is a RAID controller.

20. The apparatus as recited in claim 17, wherein the first and second queue each have a 256 command capacity.

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